Before the
Federal Communications Commission
Washington, D. C. 20554

PETITION FOR RULE MAKING)
And DOCKET NO._____
REQUEST FOR NOTICE OF INQUIRY)

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Petition for Rule Making

Introduction & Background

The purpose of the instant proposed rule making is to greatly increase the reliability of all types of
electromagnetic communication systems, which is clearly in the Public Interest, and serving the Public
Interest is the very reason for the existence of the Federal Communications Commission, as per *The*
Telecommunications Act of 1934.

As any experienced communicator knows, unattended operation increases an operation's vulnerability to manmade and natural sources of communications system failures. Examples of manmade caused failures include theft of equipment, theft of copper used in antenna ground systems and sabotage. System failures due to storms, may be avoided by switching transmitters, during lightning storms from a main solid- state to a more rugged tube transmitter and switching to emergency power before the main power goes down during emergency conditions. While automatic systems may be provided, an experienced electronic technician can outperform such devices or at least know when to override such devices.

Not only is transmission equipment more vulnerable to unattended operations, but so are people who, for example are installing new equipment. Any one who has worked at a transmitter station late at night has experienced a feeling of anxiety, especially if he is alone... Are the interlocks wired around by some inexperienced tech? Or is some filter capacitor still charged? ... Or is some guy with a grudge against the station in the woods ready to do you harm?

While the instant proposal cannot turn such dangerous situations into the equivalent of being in your bed at 3 am where normal people are, but the Petitioner believes his proposal is certainly a major step in the right direction for the protection of both humans and equipment.

Shipping Containers Offer An Inexpensive Solution

A major industry has sprung up building huge steel shipping container for shipping all sorts of products by sea and trucks. The mass production of new containers has driven down the price of used containers so that a building with a large door and suitable input power and audio inputs and an output hole for the antenna, all sealed against water and rodent access can now be purchased for less than $5,000. These are sizable, all steel painted structures, having multiples of dimensions of 20’ wide x 8' deep x 9' 6" high.

Note that these structures are available right now, January of 2008. However, our American system of free competition may provide alternative structures m the future that can improve performance or reduce the price of such structures, and therefore only general structure performance specifications are recommended in this Petition for Rule Making.

Is this a KCI innovation? No, actually, the military has utilized similar structures, i.e. well sealed transmitter buildings even bomb shelters during World War II and before. A consultant

to KCI, Mr. Tim Cutforth has recently made a specialty of designing such structures and actually a Lady GM of a Detroit station (her correctly spelled name will hopefully be provided shortly), requested the Petitioner to investigate the use of inexpensive maritime shipping containers for her station early in the 1990's and then had her transmitters moved into the containers with great success.

KCI Does Not Market The Proposed Enclosures

Kahn Communications has no special interest in the making of this proposal, except as one of many
manufacturers of solid-state complex transmission equipment which can be attacked by lightning, water and rodent infestation. As the Commission's engineers know integrated circuits (chips) have extremely low thermal mass, and therefore cannot survive even millisecond power surges.

Thus modem complex equipment has a very poor survival record in the face of lightning strikes, as well as water damage and rodent infestations. Even worse, if damaged equipment is repaired, the chips that test OK and seem to have survived such abuse are so weakened that they have a high probability of failing in a few weeks, making the equipment unusable for service which demands highly reliable performance.

This was not a serious problem in the 1980's and earlier when communication stations were manned (and womened) by families that kept the transmitter buildings spotless, and, of course, rodent free.
Similarity, all military stations, including stations in bombproof buildings, were "white glove" spotless and well protected by electrified fences and guard dogs.

Accordingly, no matter how complex was the equipment used at the stations, environmental problems were minimized. Of course, we are not considering mobile field equipment that often was encapsulated and had altogether different criteria. Such equipment normally was first designed to meet performance tests and then it would go through a lengthy design to "mil spec" the device. Indeed, the "mil spec" design was performed by a new group of design engineers, and this further work could take a year or more of work and test runs.

Even though KCI is a small firm, it has done both original design work and also mil spec environmental developments and tests for government and commercial customers… AT&T and GTE. However, in the instant case of IBOC designs the design is solely for clean station, fixed plant service. Therefore KCI, in common with the other developers of IBOC equipment, is not insensitive to lightning, water damage and rodent urine, etc. In any case, the proposed, inexpensive procedures will save lives, increase reliability of service and save money by decreasing theft of expensive equipment and copper and improve working conditions for key employees whose skill is essential for viable station operation.

Proposed Inquiry

The Petitioner respectfully requests that the Commission appoint a three-member panel of eminent engineers who have complaint free records of practice before the Commission. These engineers would be given the title of "Special Administrative Judge" and be compensated for their service at the same rate as are Administrative Judges presently serving the Commission.

Special Authorization

In order to satisfy the Instant urgent requirement that buildings such as manufactured by suppliers...

And having a minimum size of 20’wide x 8' deep x 9' high. And made of steel with sealed audio and power inputs and an antenna output with spark gap protection to reduce lightning damage. Also an air conditioner with sufficient capacity to accommodate the stations transmitter plus its spare transmitter and other equipment that is installed in the building.

Conclusion

The Petitioner Respectfully Requests the Commission to initiate a Rule Making Proceeding and Notice of Inquiry as described above.

Respectively submitted,

Leonard R. Kahn, PE, FIEEE